

Opportunity

Hardy Telecommunications, Inc. ("Hardy" or "the Company") seeks support to deploy Hardy AnchorRing, a [REDACTED] high-capacity, diverse fiber-optic Middle Mile ring in the rugged mountains of the Potomac Highlands region in Hardy County, West Virginia. The Company is a nonprofit rural telephone cooperative formed over fifty years ago in a grass roots effort to provide telephone service in an area deemed unprofitable by commercial telephone companies. Anchor institutions, public safety agencies, critical community facilities, community support organizations and the economic development authority in the area (collectively "Community Institutions"), many of whom are existing customers of the Company, have a need for higher reliability and bandwidth capacity at lower cost.

The existing Middle Mile network connecting the Hardy County service area to the Global Internet Backbone is not a diverse, redundant network today. A fiber cut on a single lateral can and has caused outages in the area. A reliable communications and broadband network is a critical need for Hardy County.

Capacity is extremely limited on the existing network. Dedicated capacity higher than 3 Mbps is unavailable in much of the area and does not meet the needs of intense users and applications such as medical imaging. The school system in the area could significantly lower replacement costs for personal computers, software, and support by deploying a public/private cloud computing system, channeling savings into academic resources, but affordable access to a high-capacity network is a requirement.

Hardy Telecommunications faces significant challenges in connecting the most rural underserved communities in its serving area due to long distances through difficult terrain to reach only a few households. A high capacity Middle Mile backbone network through the County is needed for the extension of broadband services into underserved areas of the County.

Hardy AnchorRing is a critical need for economic development in the area. The local and regional economy is concentrated in the wood products manufacturing and poultry production and processing industries, as well as in traditional agriculture products. Small businesses and entrepreneurs are of great importance to the local economy. Many of the area's labor force out commute to work nearly an hour away. Spikes in gasoline prices in recent years and intense domestic and international competitive pressure for all manufacturing areas - especially wood products heavily dependent on the weakened housing construction industry - have created a sense of urgency to create and retain jobs within the local area. Economic diversity is a key concern for Hardy County.

A primary objective for economic development calls for recruitment of businesses involved in electronic data processing and software development, which depend on reliable, affordable, and robust communications and broadband services. The region is under consideration for a "Corridor H" evacuation route from Washington DC in the event of a security emergency, but evacuees along the route would be at risk without reliable and secure communications and sufficient capacity. A private company engaged in Homeland Security training is located in the area and requires reliable and secure connectivity.

Hardy Telecommunications wishes to serve the Hardy County area at reliability, capacity, and affordability levels equal to or better than those commonly available in other areas of the U.S., but without a significant investment in infrastructure, protection and expansion of services is not an option. The Company is a nonprofit telephone cooperative with no requirement to satisfy public shareholder demand for higher returns, but it is infeasible for the Company to deploy the critically needed infrastructure without public support, due to: a) low population of only 13,420 people, limiting subscriber revenues to recover cost of deployment, and b) mountainous terrain and very low household density at only 4.47 households/mile in some areas, raising deployment costs.

Hardy AnchorRing will connect Community Institutions to a network with capacity at ten Gbps at inception, scalable to much higher capacities to meet future demand. The ring will connect upstream at two locations for multiple paths, connecting to routes only one hop from the Global Internet backbone in Washington, DC. This would allow the Company, other service providers, and Community Institutions to obtain wholesale Internet service at the lowest possible cost, lowering prices in the area and increasing adoption. It would allow the rural development authority in the area to recruit electronic back office and software development and support companies from the Washington metro area.

General Description of Proposed Funded Service Area

Hardy AnchorRing will traverse rural communities in Hardy County, West Virginia. The Ridge, comprised of only 154 households and 5 businesses in a hard to reach, sparsely populated, low density area, is approximately 90% underserved. Interconnection facilities will be established within the Ridge area, overcoming wireless backhaul challenges due to mountainous terrain and heavy foliage cover, and allowing for provisioning of DSL equipment or fiber to the premise last mile service equipment by Hardy Telecommunications or other service providers.

Number of Houses and Businesses Passed

There are approximately 6,114 residents, 2,540 households, and 804 businesses in the Ridge. The Service Area is many times underserved.

Number of Community Anchor Institutions, Critical Community Facilities and Public Safety Sites

Interconnection will be provided for 27 Community Institutions in the area, of which 22 are public safety sites, 57 are anchor institutions, and 50 are critical facilities including government agencies and federal government facilities. Other Community Institution sites include the newspaper and radio station, cell towers, and major employers.

Proposed Services and Applications

High Capacity Dedicated Ethernet service and/or low-cost Dedicated symmetrical Internet service will be offered to the Community Institutions from 10 to 500 Mbps/second ("Mbps") up to 1 Gbps/second (1 Gbps) and higher. Service is offered at low wholesale rates, and an additional discount will be offered to schools, nonprofit health care providers, the library, government agencies, and public safety Community Institutions.

will be connected directly to the Hardy Anchor Ring either on the fiber Middle Mile backbone or on fiber laterals connected to the backbone. The Hardy Anchor Ring is a Middle Mile network, but the Company and other providers can deploy last mile services from interconnections along 21 interconnection sites.

Approach to Nondiscrimination and Interconnection Obligations

Hardy Telecommunications will comply with the Nondiscrimination and Interconnection Obligations of the regulations governing BIP and BTOP awards. Hardy complies with the principles of FCC Internet Policy Statement FCC 05-151. The Company displays its network management practices in a prominent position on its web page, and will notify customers of any changes to these policies. Hardy does not limit usage and does not differentiate among applications, providers, or sources; the Company allocates capacity in an application neutral manner.

Hardy AnchorRing will be in at 10 Gbps of capacity at inception but can scale to 40 Gbps by adding the addition of wave division multiplexing electronics. If an interested party makes a bona fide request for circuits or wavelengths, Hardy will offer interconnection at reasonable rates and terms in a good faith negotiation. The Company will post its interconnection policies on its website.

Type of Broadband System

Hardy AnchorRing will be a aerial and underground 11-mile fiber-optic network ring and laterals comprised of 144 strand single mode fiber-optic cable. The system will be deployed using long range and 10 Gbps capacity with long range Ethernet over SONET optics and 10 Gbps. The system is highly scalable with capacity for 40 Gbps Ethernet electronics. Interconnections will be accomplished at 21 interconnection points. Hardy is currently and will be deploying new facilities being deployed at Pine Ridge and Wardsville, and 20 direct connections at Community Institutions.

Qualifications of the Applicant

Hardy Telecommunication has served the area for over fifty years. With such a long and successful history of continuous service in a such a difficult to serve area; a high level of community support for the project; a governance board comprised of community members; and highly competent and experienced management and staff, Hardy Telecommunications is uniquely qualified to deploy, maintain, and sustainably operate a Middle Mile network in this sparsely populated rugged mountain area.

Overall Infrastructure Cost of the System

The overall infrastructure cost of the broadband system is \$2,000,000. An investment of public funding leverages over fifty years of investment in the rural region by Hardy Telecommunications.

Expected Subscriber Projections

Subscribership was expected to decline after Fall, 2009 but the broadband adoption rate increased almost 70% over the latest 12 months to the current level of 36%. Hardy expects subscribership to grow as a result of Hardy AnchorRing to 40% over a five-year period, adding at least 404 residential and business subscribers and 98 Community Institutions along the ring.

Number of Jobs to be Created or Saved

Employment directly related to deployment and operation of Hardy AnchorRing will create 34 new jobs. An investment in Hardy AnchorRing is a long-term investment that will underpin economic development in the area and generate jobs for decades to come.